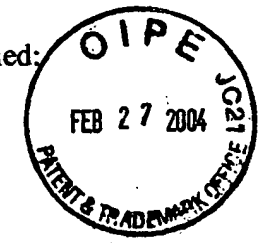
In re the application of: NICHOLAS LONGO
Title: INTERACTIVE PERFORMANCE INTERFACE FOR ELECTRONIC SOUND DEVICE
Filed: 26 November 2003



10/723,889

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as Priority Mail in a box addressed to: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450 on 25 February 2004.

Signed: _____
Nicholas Longo

Information Disclosure Statement by Applicant

Attached are completed copies of forms listing these references, and copies of pertinent parts of the references cited thereon. Following are comments on these references pursuant to Rule 98:

1.) Kondo 6,407,326 shows a piano style keyboard controller that generates separate release data and damping data.

2.) Lindemann 6,316,710 discloses sequencing audio segments in response to user actions to create musical phrases.

3.) Longo RE37,654 discloses methods of generating synthesized control data responsive to user activated control devices.

4.) Kay 6,087,578 shows methods of generating pitch bend effects.

5.)Smith et al 6,018, 118 show methods of mapping sensor signals into control signals.

RECEIVED
APR 12 2004
OIPE/JCW5

6.) Ishibashi 5,922,982 shows a guitar synthesizer that outputs differences in the detected pitch of a vibrating string as pitch bend data, instead of as note-on data, when a hold mode is activated by a pedal.

7.) Fay et al 5,827, 989 show methods of representing curve events as discrete MIDI events.

8.) Vandervoort 5,726,374 discloses strumming selected notes in response to operation of a triggering device.

9.) Vandervoort 5,648,630 shows performance modes termed sustain and repetition modes, preferably for a Janko keyboard.

10.) Hagino 5,610,353 shows use of separater audio data for legato and non-legato performance, as determined by a fingered legato scheme known in the art.

11.) Hagino 5,260,570 discloses controlling envelope data using touch data.

12.) Okamoto et al 5,247,131 shows performance modes determined by position of operation of a stylus device for simulating a rubbed string instrument.

13.) Usa et al 5,241,126 discloses generating glissando and portamento effects using a performance operator and conversion characteristics.

14.) Kato 5,216,189 discloses means of slurring notes using preset control curves.

15.) Tozuka et al 5,160,799 shows a means for imparting pitch bend effects on two tones independently using one pitch wheel control device.

16.) Katoh et al. 4,726,276 shows a means of imparting a slur effect that includes using tones on two channels

17.) Tomisawa et al 4,524,668 shows a circuit to modify control envelopes to impart a slur effect responsive to depressed keys.

18.) Deutsch 4,332,183 shows a circuit to impart a slur effect to successive notes responsive to note interonset times.

19.) Jensen et al 4,211,141 shows a circuit to provide performance functions analogous to a piano sustain pedal.

20.) Wanderley et al describes a system that sequences audio signals in response to user actions.

21.) Yamaha specifies a wind controller that includes selection and activation of notes.

22.) Wright, Wessel and Freed describe the use of a digitizing tablet as a control device.

23.) Goudeseune discusses controller theory and prior art.

24.) Mulder describes Virtual Musical Instrument design including physical models controlled by position and orientation data from a data glove.

25.) Hunt, Wanderley and Kirk discuss strategies for mapping control data to sound synthesis parameters.

26.) Orio, Schnell and Wanderley discuss application of Human Computer Interaction theory to new interfaces for musical expression.

27.) Paradiso discloses an Auto Bend and Auto Trill function triggered by release of all notes.

28.) Rovan et al discuss one to one, divergent and convergent mapping of control data to sound parameters.

29.) Janosy et al discuss an intelligent control interface for a physical model of an acoustic guitar.

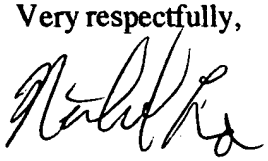
30.) Anderson and Hearn discuss "hyper instrument" peformance interfaces.

31.) Desain and Honing discuss algorithmic representations of musical gestures.

32.) Cook discusses modeling physical limitations of a musician-user as well as a musical instrument physical model.

None of the cited references disclose a performance interface that enables phrase synthesis via interactive control envelopes, implemented using a hierarchical arrangement of conditional latches. Many decry the need for greater interactivity, expression and flexibility of control. But though these references include the most learned discussions of current developments in gestural research, as well as both the historical and the most relevant patents, none suggests how such a performance interface could be implemented.

Very respectfully,



Nicholas Longo
2315 Grant St. #2
Berkeley, CA 94703
(510) 548-6193 (510) 704-0750

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (10-98)
Approved for use through 10/31/99. OMB 0851-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

OIPE FEB 27 2004 PATENT & TRADEMARK OFFICE

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet | | of | |

Complete if Known	
Application Number	
Filing Date	11/26/2003
First Named Inventor	Nicholas Longo
Group Art Unit	
Examiner Name	Fletcher
Attorney Docket Number	

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	6,407,326		Kondo	6/18/02	
	2	6,316,710		Lindemann	11/13/01	
	3	RE 37654E		Longo	4/16/02	
	4	6,087,578		Kay	7/11/00	
	5	6,018,118		Smith et al	1/25/00	
	6	5,923,982		Ichibashi	7/13/99	
	7	5,827,989		Fay et al	10/27/98	
	8	5,726,374		Van der Voort	3/10/98	
	9	5,698,630		Van der Voort	7/15/97	
	10	5,610,353		Hagino	3/11/97	
	11	5,260,570		Hagino et al	11/9/93	
	12	5,247,131		Okamatoi	9/21/93	
	13	5,241,126		Usa et al	8/31/93	
	14	5,216,189		Kato	6/1/93	
	15	5,160,799		Tsutsui et al	11/3/92	
	16	4,726,276		Katoh et al	2/23/88	
	17	4,524,668		Tomisaka et al	6/25/85	
	18	4,332,183		Deutsch	6/1/82	
	19	4,211,141		Jensen et al	7/8/80	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] See attached Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
Sheet 2 of 3

In re the application of: NICHOLAS LONGO
Filed: November 26. 2003,

Examiner Initials	Cite No	Name of Author, Title, Publication, Date
	20	MARCELO M. WANDERLY, NORBERT SCHNELL, JOSEPH ROVAN, ESCHER - Modeling and Performing Composed Instruments in real-time Proceedings of the 1998 IEEE International Conference on Systems, Man and Cybernetics (SMC'98), pp 1080-1084, 1998
	21	YAMAHA CORPORATION OF AMERICA, WX7 Wind Controller Manual
	22	MATHEW WRIGHT, DAVID WESSEL, ADRIAN FREED, New Musical Control Structures from Standard Gestural Controllers, Proceedings of the International Computer Music Conference, 1997
	23	CAMILLE GOUDESEUNE, Composing with Parameters for Synthetic Instruments, PhD Thesis, University of Illinois at Urbana-Champagne, 2001
	24	ALEX G.E. MULDER, PhD thesis, Simon Fraser University, Burnaby BC, Canada, 1998
	25	ANDY HUNT, MARCELO M. WANDERLY, ROSS KIRK, Towards a Model for Instrumental Mapping in Expert Musical Interaction, Proceedings of the International Computer Music Conference, 2000.
	26	NICOLA ORIO, NORBERT SCHNELL, MARCELO M. WANDERLEY, Input Devices for Musical Expression, Borrowing Tools from HCI, NIME Conference, Seattle WA, April 2001
	27	JOSEPH PARADISO, Oberheim 4 Voice MIDI Interface User's Manual, 1991
	28	JOSEPH BUTCH ROVAN, MARCELO M. WANDERLEY, SHLOMO DUBNOV and PHILIPPE DEPALLE, Instrumental Gestural Mapping Strategies as Expressivity Determinants in Computer Music Performance, Proceedings of the AIMI International Workshop,A. Camurri, ed. Genoa: Associazione di Informatica Musicale Italiana, October 3-4, 1997, pp. 68-73
	29	ZOLTAN JANOSY, MATTI KARJALAINEN, VESA VALIMAKI, Intelligent Synthesis Control with Applications to a Physical Model of the Acoustic Guitar, Proceedings of the International Computer Music Conference 1994

Examiner Signature _____ Date Considered _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
Sheet 3 of 3

In re the application of: NICHOLAS LONGO
Filed: November 26, 2003

Examiner Initials	Cite No	Name of Author, Title, Publication, Date
	30	TIM ANDERSON, DEBBIE HORN, Using Hyper-Instruments for the re-distribution of the performance control interface, Proceedings fo the Interantional Computer Music Conference, 1994.
	31	PETER DESAIN and HENKJAN HONING, Towards Algorithmic Descriptions of Continuous Modulations of Musical Parameters, Proceedings of the International Music Conference, 1995
	32	PERRY R. COOK, A Hierarchical System for Controlling Synthesis by Physical Modeling, Proceedings of the International Computer Music Conference, 1995

Examiner Signature

Date Considered